WHAT IS CLAIMED IS:

1.　A control system for carrying out control such that a detection value as to a condition of a controlled system converges to a steady-state reference value, said control system comprising:

　　　a main computation section for carrying out control of said controlled system by receiving the steady-state reference value and the detection value, and by generating a manipulated variable that varies such that the detection value converges to the steady-state reference value;

　　　a main detecting section for supplying said main computation section with the detection value;

　　　a sub-computation section for carrying out control of said controlled system by receiving the detection value of said main detecting section and another detection value, and by generating a manipulated variable that varies such that the another detection value converges to the detection value input to said main computation section; and

　　　a sub-detecting section for supplying said sub-computation section with the another detection value.

2.　The control system according to claim 1, further comprising a first selector for receiving the steady-state reference value and the detection value of said main detecting section, and for selecting and supplying one of them to said sub-computation section.

3.　The control system according to claim 1, wherein said sub-computation section adds a specified offset value to the input steady-state reference value or to the input detection value fed from said main detecting section, and controls said controlled system in response to the resultant sum.

4. The control system according to claim 1, further comprising a steady-state reference value memory for storing the steady-state reference value and for supplying it to said main

5   computation section and sub-computation section.

5. The control system according to claim 1, further comprising:
        steady-state reference value memories for outputting steady-state reference values, a number of said steady-state

10   reference value memories being equal to a total number of said main computation section and said sub-computation section; and
        a second selector for switching input sources to said main computation section or to said sub-computation sections among said steady-state reference value memories.

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6. A control system for carrying out control such that a detection value as to a condition of a controlled system converges to a steady-state reference value, said control system comprising:
        a computation section for receiving the steady-state

20   reference value and the detection value, and for outputting a first manipulated variable that varies such that the detection value converges to the steady-state reference value;
        a plurality of multiplication sections for receiving the first manipulated variable, and for outputting second manipulated

25   variables by multiplying the first manipulated variable by preset ratio coefficients; and
        a ratio coefficient preset section for calculating ratio coefficients for said multiplication sections individually, and for setting the ratio coefficients to said multiplication

30   sections, said ratio coefficients being calculated from the detection values of regions of the controlled system installed in correspondence to said plurality of multiplication sections,

to reduce errors of the detection values of the regions of said controlled system with respect to the steady-state reference value, wherein

said control system carries out control of said controlled

5 system in response to the second manipulated variables.

7. A control system for carrying out control such that a detection value as to a condition of a controlled system converges to a steady-state reference value, said control system comprising:

10 N computation sections for receiving the steady-state reference value and the detection value, and for outputting a first manipulated variable that varies such that the detection value converges to the steady-state reference value, where N is an integer greater than one;

15 N multiplication sections for receiving the first manipulated variable, and for outputting second manipulated variables by multiplying the first manipulated variable by preset ratio coefficients; and

a first selector for switching input sources to said

20 multiplication sections among said N computation sections, wherein

said control system carries out control of said controlled system in response to the second manipulated variables.

25 8. A control system for carrying out control such that a detection value as to a condition of a controlled system converges to a steady-state reference value, said control system comprising:

a computation section for receiving the steady-state reference value and the detection value, and for outputting a

30 first manipulated variable that varies such that the detection value converges to the steady-state reference value;

a plurality of multiplication sections for receiving the

first manipulated variable, and for outputting second manipulated variables by multiplying the first manipulated variable by preset ratio coefficients; and

a second selector for receiving a first manipulated variable and a second manipulated variable, and for selecting and outputting one of them, wherein

said control system controls the controlled system in response to the output of said second selector.

9. A control system comprising:

a plurality of manipulating sections for varying a state of a controlled system independently of each other;

a detecting section for detecting states of the controlled system; and

a control section for supplying said plurality of manipulating sections with manipulated variables such that detection values as to the states of the controlled system by said detecting section converge to a steady-state reference value, wherein

said detecting section detects the states in neighborhoods of all of said manipulating sections; and

the manipulated variables said control section supplies to said manipulating sections are corrected using detection value deviations of the detection values near the manipulating sections with reference to a particular one of the detection values.

10. The control system according to claim 9, wherein said control unit comprises:

a steady-state reference value memory circuit for storing a steady-state reference value; and

computation circuits installed in a one-to-one correspondence to said manipulating sections, for calculating

and outputting the manipulated variables for the manipulating
sections by using control deviations of the detection values
with respect to separate reference values, wherein

    one of said computation circuits, which corresponds to the
5   manipulating section associated with the reference detection
value, is supplied with the steady-state reference value as a
separate reference value, and

    a remaining computation circuit is supplied with the
reference detection value as the separate reference value.
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11.   A control unit that calculates manipulated variables such
that measurement values, which represent states of a controlled
system consisting of a plurality of regions, agree with a preset
value, and that carries out control by supplying the regions
15   with the manipulated variables, respectively, said control unit
comprising:

    a manipulated variable computation section for calculating
a first manipulated variable and a second manipulated variable
in accordance with the measurement value of a first region of
20   said controlled system and the preset value, and for supplying
the first manipulated variable to the first region as a first
region manipulated variable;

    a deviation control section for calculating a third
manipulated variable from the measurement value of a remaining
25   region of said controlled system and one of the preset value
and the measurement value of the first region; and

    an adder for computing a manipulated variable from the second
manipulated variable calculated by said manipulated variable
computation section and the third manipulated variable calculated
30   by said deviation control section, and for supplying the computed
manipulated variable to the remaining region as a remaining region
manipulated variable.